

# Bradwell Site LCLC

Report for July 2019 to February 2020

**This report covers our regulation of Bradwell site and related issues.**

## Radioactive substances regulation

We regulate radioactive waste disposals to deliver the best outcome for the environment. We do this by placing limits and conditions in the environmental permits that help us ensure radioactive waste discharges are minimised and the environment is protected.

We were informed in the last quarter of 2019 that a batch of waste consigned from Bradwell earlier in the year had not conformed to the conditions for acceptance of the receiving site. We believe this may breach the conditions of Bradwell's environmental permit. We are investigating the incident and will report on the outcome of our investigations at the next Bradwell LCLC meeting.

## LLW Disposal

We noted during our readiness inspection in November 2018 that accessible low level radioactive waste (LLW) remained on Bradwell site. This is not consistent with the regulatory expectations set out for 'deferred dismantling' in our decommissioning guidance. We visited Bradwell at the end of June to assess waste management arrangements. We noted that the majority of LLW present on our previous inspection had been removed, that the site was generally in a clean and tidy state, and that Magnox was making good progress with the demolition of remaining facilities. Magnox confirmed at the end of August that all accessible radioactive waste and inactive waste had been removed from the site.

A few additional, small areas of surface contamination were identified during the final site radiation survey. These were either remediated or capped and added to the list of

locations to be maintained during the Care & Maintenance period.

Free liquid was discovered in September 2019 in a container of waste consigned from Bradwell to a waste treatment facility. This contravened the waste acceptance criteria of the receiving site and we consider that conditions of Bradwell's environmental permit may have been breached. We received a copy of the incident investigation report from Magnox in December and have requested additional information. We are assessing the incident and will report on the outcome of our investigation at the next Bradwell LCLC meeting.

## Higher Activity Waste

In October 2019, we inspected the arrangements for management of higher activity waste in the Intermediated Storage Facility (ISF) at Bradwell. We were satisfied with the condition and management of the ISF. We made minor recommendations on record keeping of waste packages.

## Permit Information Conditions

Magnox have not yet demonstrated that they meet all of the Environment Agency's expectations for a site placed in an interim state to allow for deferred dismantling. We have therefore set information conditions in the permit.

Magnox have supplied information to us confirming that they have management arrangement in place for Bradwell to meet all the conditions of their permit. We are assessing Magnox's submission against the requirements of the information condition (Condition IC1), and will report our conclusions at the next Bradwell LCLC meeting.

## CEAR Variation

We varied the Compilation of Environment Agency Requirements (CEAR) for Bradwell in December following a Direction from BEIS to implement a BSSD recommendation on standardised discharge reporting from nuclear power stations and reprocessing facilities. The BEIS direction now makes compliance mandatory in England and Wales. This has resulted in the addition of two new paragraphs to requirement 4.2.2 Part 2 of the CEAR. Council Directive 96/29/Euratom of 13 May 1996

Previously, compliance with standardised discharge reporting was optional for operators with supporting guidance given in radiological monitoring technical guidance note 1 (RMTGN1). Because RMTGN1 is no longer applicable in England and Wales, we removed reference to it from requirement 4.2.2 Part 2 of the CEAR. Reference to Council Directive 96/29/Euratom were replaced by reference to the more recent ICRP Publication 60, issued in 2012.

## Regional working

Bradwell is now managed from Sizewell A site. Sizewell A staff carried out a site re-entry exercise at Bradwell in the last quarter of 2019. We reviewed summary reports of the exercise and are satisfied that environmental risks were well managed during the re-entry exercise. We believe that organisational learning on the management and sentencing of radioactive waste under these circumstances will be usefully applied in future re-entry exercises.

## Discharge Reports

Nuclear sites are required to routinely report to us their liquid and gaseous discharges to the environment. We review these reports for compliance which is detailed in a RASCAR, and subsequently placed on the public register.

Discharges of active liquid effluent from the site have ceased. Rainwater drains to a single point on site (the Main Drains Pit) and is periodically discharged to the Blackwater Estuary. Magnox takes a spot sample from the Main Drains Pit for analysis at quarterly intervals.

From May 2019, when the most recent permit variation came into effect, Magnox is required to report discharges to us on an annual basis, within three months of the end of the calendar year. We have not yet received the discharge returns for Bradwell for 2019. These will be placed on the public register once we receive them and may be requested the Environment Agency using the contact details given at the end of this report.

## Environmental Impacts

The RIFE report presents a yearly assessment of radiological dose to individuals in the vicinity of nuclear sites

The latest report, "Radioactivity in Food and the Environment 2018" (RIFE 24) is published on the gov.uk website at:

<https://www.gov.uk/government/publications/radioactivity-in-food-and-the-environment-rife-reports>

RIFE 24 includes an annual assessment of radiological dose to the group of people in the local population identified as being most exposed to radiation from the Bradwell site. In 2018, the dose attributed to this group of people from all pathways and sources of radiation from Bradwell was 0.011 millisieverts, the same as in 2017. This radiological dose is well below the UK Government dose limit for members of the public from man-made sources of 1 millisieverts per year.

## **On-going regulation of Bradwell under Care & Maintenance**

Although the most significant hazards have been removed from Bradwell site or made passively safe, there remain some areas of site that are radioactively contaminated and which are not due to be decommissioned until final site clearance. Magnox continue to monitor and report on radioactive discharges from the site and on the results of the environmental monitoring programme around the site to measure levels of radioactivity in the local environment and detect any trends in these levels.

The Bradwell site continues to be regulated under the Environmental Permitting Regulations (EPR) 2016 and will have environmental permits for both radioactive substances activities and water discharges. We will tailor our regulatory activities, proportionately to the risks from site, whilst ensuring the standards of protection of the public and environment are maintained. We will continue to independently scrutinise Magnox's arrangements for compliance, taking on board the views of local stakeholders and interested parties.

## **Further Information**

Contact the Environment Agency's Lead Regulator for the Bradwell site, Peter Reynolds, based in the Nuclear Regulation Group (South) at

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